INDEX TO AUTHORS.

A

Allin, Kathleen Drew. See HARDING, ALLIN, and EAGLES, 631

Alsberg, C. L., and **Griffing, E. P.** Observations upon starch, p. lxv

Anderson, R. J. The separation of lipoid fractions from tubercle bacilli, 525

—. A study of the lipoids of tubercle bacilli, p. lxvi

—. A study of the phosphatide fraction of tubercle bacilli, 537

—. See HESS and ANDERSON, 651

Andrews, James C. The optical activity of *l*-cystine, p. xiii

—. The reduction of cystine-hydrogen peroxide as a catalyst, p. xi

—. The resolution of racemic cystine, p. xii

Anson, M. L., and **Mirsky, A. E.** The reversibility of protein coagulation, p. lvii

Ariyama, N. Observations on glyoxals and glyoxalase, with a new colorimetric method for glyoxals, p. xlv

Austin, W. C. The effect of the parathyroid hormone on gastric secretion. The calcium content of gastric juice, p. lxiv

B

Baernstein, Harry D. The conductivity method and proteolysis. I. Experiments on peptone, p. lviii, 351

Barbour, Henry G. See HAMILTON and BARBOUR, 553

Bass, Lawrence W. See LEVENE and BASS, 715, 727

Becker, J. Ernestine. See SIMMONDS, BECKER, and MCCOLLUM, p. lxviii

Bencowitz, Isaac. See LEVENE and BENCOWITZ, 153

Bennett, Helen B. See SHOHL and BENNETT, p. iv, 247

Berg, Benjamin N. See HESS, BERG, and SHERMAN, p. xxvii

Berthelsen, Knud C. See VAN SLYKE, HILLER, and BERTHELSEN, 659

Bischoff, Fritz, Blatherwick, N. R., and **Hill, Elsie.** The fate of colloidal lead compounds after intravenous injection, p. lxxix

Blatherwick, N. R. See BISCHOFF, BLATHERWICK, and HILL, p. lxxix

Bloor, W. R., and **Sinclair, R. G.** The determination of small amounts of fatty acids, p. iv

XUM

Bock, A. V. See DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK, 303
—. See DILL, LAWRENCE, HURXTHAL, and BOCK, 313
Bodansky, Meyer, Morse, Stanley W., Kiech, Veon C., and Bramkamp, Robert B. The distribution of protein in the blood in experimental anemia, 463
Boggs, H. M. See SURE, 45, 55, 71
Brakefield, J. L. Detoxication of benzoic acid in man, 783
Bramkamp, Robert B. See BODANSKY, MORSE, KIECH, and BRAMKAMP, 463
Brocklehurst, R. J. The buffering of the tissues as indicated by the CO_2 capacity of the body, p. lxxx
Brown, Minerva. See MACY, OUTHOUSE, LONG, BROWN, HUNSCHER, and HOOBLER, p. xxxi
Brown, W. Easson. See LUCAS, BROWN, and HENDERSON, p. lxxix
Buell, Mary V., and Perkins, Marie E. Oxyadenine, p. lxxx
Burge, W. E., Wickwire, George C., Estes, A. M., and Williams, Maude. A study of the stimulating effect of the amino acids on sugar metabolism with respect to their optical activity, 235
Burke, A. D. See HELLER and BURKE, 85
Burr, George O. See EVANS and BURR, p. lxxii

C

Cajori, F. A., and Pemberton, Ralph. Observations on the chemical composition of synovial fluid, p. xxii
Campbell, Walter R. The detection and estimation of sulfhemoglobin, p. lvi
van Caulaert, C. See DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK, 303
—. See HENDERSON, DILL, VAN CAULAERT, FÖLLING, and COOLIDGE, p. xxxvi
Chaikoff, I. L. Observations on the ketone body excretion, the dextrose to nitrogen ratios, and the glycogen content of liver and muscles of fasted, depancreatized dogs, 203
Chanutin, Alfred. A study of the effect of creatine on growth and its distribution in the tissues of normal rats, p. xxi
Clayton, Mary M. The influence of diets containing unsaturated animal fats on reproduction and lactation in the rat, p. lxxiv
Cohn, Edwin J., Minot, George R., Fulton, John F., Ulrichs, Hermann F., Sargent, Florence C., Weare, John H., and Murphy, William P. The nature of the material in liver effective in pernicious anemia. I, p. lxix
Collip, J. B. The glycogen content of fetal heart and skeletal muscle, p. lxxx

Collip, J. B. Some effects of asphyxia on blood chemistry, p. xxviii

Coolidge, Thomas C. See HENDERSON, DILL, VAN CAULAERT, FÖLLING, and COOLIDGE, p. xxxvi

Cori, Carl F., and **Cori, Gerty T.** The fate of glucose in adrenalectomized rats, p. 1

— and —. The fate of sugar in the animal body. VII. The carbohydrate metabolism of adrenalectomized rats and mice, 473

Cori, Gerty T. See CORI and CORI, p. 1, 473

Corley, Ralph C. Factors in the metabolism of lactose. I. The disposal of intravenously administered galactose in the rabbit, 1

—. II. The effect of glucose and galactose on the disposal of intravenously administered galactose in the rabbit, 19

Crist, John W. See DYE, MEDLOCK, and CRIST, 95

Csonka, Frank A., and **Jones, D. Breese.** Studies on glutelins, p. liv

—. See JONES and CSONKA, 427

D

Dahle, C. D. See DUTCHER, HONEYWELL, and DAHLE, p. lxxxi

—. See HONEYWELL, DUTCHER, and DAHLE, p. lxxvii

Davis, Russell E. The nitrogenous constituents of hen urine, 509

Deuel, Harry J., Jr., Milhorat, Adolph T., and **Sweet, J. E.** The action of phlorhizin in nephrectomized dogs, p. xl

—, **Wilson, H. Ellis C.,** and **Milhorat, Adolph T.** Animal calorimetry. Thirty-fifth paper. On the mechanism of phlorhizin diabetes, 265

Dill, D. B., Hurxthal, L. M., van Caulaert, C., Fölling, A., and **Bock, A. V.** The carbon dioxide equilibrium in alveolar air and arterial blood. II. Resting subjects, 303

—, **Lawrence, J. S., Hurxthal, L. M.,** and **Bock, A. V.** The carbon dioxide equilibrium in alveolar air and arterial blood. III. Exercising subjects, 313

—. See HENDERSON, DILL, VAN CAULAERT, FÖLLING, and COOLIDGE, p. xxxvi

Doisy, Edward A., Jordan, C. N., and **Thayer, S.** Some additional observations upon the ovarian hormone, p. lxxx

Donovan, Paul B. See HANKE and DONOVAN, p. xxiv

Drabkin, David L. The normal urinary pigment. A new method for its extraction, p. xv

Dutcher, R. Adams, and **Ely, J. O.** The assimilation of the fat-soluble vitamins A and D in the presence of paraffin oil, p. lxxxi

—, **Honeywell, Hannah E.,** and **Dahle, C. D.** Vitamin A in evaporated milks made

by vacuum and aeration methods, p. lxxxi

Dutcher, R. Adams. See HONEYWELL, DUTCHER, and DAHLE, p. lxxvii

Dye, Marie, Medlock, Olin C., and **Crist, John W.** The association of vitamin A with greenness in plant tissue. I. The relative vitamin A content of head and leaf lettuce, 95

E

Eagles, Blythe Alfred. See HARDING, ALLIN, and EAGLES, 631

Elvehjem, C. A., and **Peterson, W. H.** The iron content of animal tissues, 433

Ely, J. O. See DUTCHER and ELY, p. lxxxi

Embree, H. C. See MCNALLY, EMBREE, and RUST, 219

Estes, A. M. See BURGE, WICKWIRE, ESTES, and WILLIAMS, 235

Evans, Herbert M., and **Burr, George O.** A new dietary deficiency produced with highly purified diets, p. lxxii

Evenden, James. See DEUEL, WILSON, and MILHORAT, 265

Everett, Mark R., and **Shoemaker, Harold A.** The estimation of total sugar in blood and urine, p. vi

—, —, and **Sheppard, Fay.** Total sugar of blood and urine, 739

F

Fiske, Cyrus H., and **Subbarow, Yellapragada.** The "inorganic phosphate" of muscle, p. xxii

Folin, Otto. The determination of tyrosine and tryptophane in proteins, p. lxxx

Fölling, A. See DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK, 303

—. See HENDERSON, DILL, VAN CAULAERT, FÖLLING, and COOLIDGE, p. xxxvi

Fred, E. B. See WILSON, PETERSON, and FRED, 495

Fulton, John F. See COHN, MINOT, FULTON, ULRICHS, SARGENT, WEARE, and MURPHY, p. lxix

G

Gaebler, Oliver Henry, and **Keltch, Anna K.** Studies on blood creatinine, p. xx

Geiling, E. M. K. See SUPNIEWSKI, ISHIKAWA, and GEILING, 241

Gersdorff, Charles E. F. See JONES and GERSDORFF, 415

Gilbert, B. E., and **Smith, J. B.** The ceruleomolybdate estimation of phosphate-phosphorus, 223

Glover, Eugene Chellis. See SCHMITZ and GLOVER, 761

Gloy, O. H. M. See SHERMAN and GLOY, 117

Goebel, Walther F. The soluble specific substance of Friedländer's bacillus. IV.

On the nature of the hydrolytic products of the specific carbohydrate from Type A Friedländer bacillus, 619

Goebel, Walther F. See HEIDELBERGER and GOEBEL, 613

Gortner, Ross Aiken. The nature of the combination between certain acid dyes and proteins, 409

Greenberg, David M. The transport numbers of solutions of fibrin in dilute acids and alkalies, p. lii

Greene, Carl H. See POWER and GREENE, p. xix

Griffing, E. P. See ALSBERG and GRIFFING, p. lxv

Griffith, Wendell H. The effect of sodium benzoate on the growth of rats, p. lxv

Gustus, Edwin L. See JACOBS and GUSTUS, 795, 805, 811, 829

Guthrie, C. C., McEllroy, W. S., and **Kruse, T. K.** Studies in methemoglobinemia, p. lxxxi

—. See MCELLROY and GUTHRIE, p. xxxv

H

Haller, H. L. See LEVENE and HALLER, 343

Hamilton, William F., and **Barbour, Henry G.** The effects of respiratory gases upon the density of blood and other fluids, 553

Hammett, Frederick S. Chemical study of thymus involution, p. lxiii

Hamsa, W. R. See MORGULIS and HAMSA, 851

Hanke, Martin E., and **Donovan, Paul B.** The organic chlorides of tissues and their possible relation to gastric hydrochloric acid formation, p. xxiv

Hanke, Milton T. The colorimetric estimation of tyrosine in protein, p. x

Harding, T. Swann. See TURNER, HARDING, and HARTMAN, p. xxvii

Harding, Victor John, Allin, Kathleen Drew, and **Eagles, Blythe Alfred.** Influence of fat and carbohydrate diets upon the level of blood uric acid, 631

Harned, Ben K. Oxidations induced by sugars, p. xlvii

Hart, E. B. See STEENBOCK, HART, RIISING, and HOPPERT, p. lxxiii

Hartman, Arthur M. See TURNER, HARDING, and HARTMAN, p. xxvii

Hawes, Effie Ross. See STADIE and HAWES, p. xxxi

Hawkins, James A. See VAN SLYKE and HAWKINS, p. viii

Heidelberger, Michael, and **Goebel, Walther F.** The soluble specific substance of pneumococcus. V. On the chemical nature of the aldobionic acid from the specific polysaccharide of Type III pneumococcus, 613

Heller, V. G., and **Burke, A. D.** Toxicity of zinc, 85

Helmer, Oscar. A quantitative method for trypsin, p. lxxxi

Henderson, L. J., Dill, D. B., van Caulaert, C., Fölling, A., and **Coolidge, Thomas C.** The steady state of heavy work, p. xxxvi

Henderson, V. E. See LUCAS, BROWN, and HENDERSON, p. lxxix

Hendrix, Byron M. A method for the determination of small amounts of copper in protein and other organic materials, p. vii

Hess, Alfred F., and **Anderson, R. J.** The antirachitic value of irradiated cholesterol and phytosterol. VIII. The activation of sterile fractions by ultra-violet irradiation, 651

—, **Berg, Benjamin N.,** and **Sherman, Elizabeth.** Changes in calcium level of the blood following section of the sympathetic or of the spinal cord, p. xxvii

Hill, Elsie. See BISCHOFF, BLATHERWICK, and HILL, p. lxxix

Hiller, Alma. See VAN SLYKE, HILLER, and BERTHELSEN, 659

Hoffmann, Alexander. See JACOBS and HOFFMANN, 787

Hollander, Franklin. The mechanism of gastric secretion. Preliminary report on a technique for collecting gastric juice of constant and reproducible pH, p. xxiii

Honeywell, Hannah E., Dutcher, R. Adams, and **Dahle, C. D.** Vitamin D in evaporated milks made by vacuum and aeration methods, p. lxxvii

Honeywell, Hannah E. See DUTCHER, HONEYWELL, and DAHLE, p. lxxxi

Hoobler, B. Raymond. See MACY, OUTHOUSE, LONG, BROWN, HUNSCHER, and HOOBLER, p. xxxi

Hoppert, C. A. See STEENBOCK, HART, RIISING, and HOPPERT, p. lxxiii

Hubbard, Roger S. A colorimetric method for the determination of sulfate in serum, p. v

Hughes, J. S., Latshaw, W. L., and **Smits, B. L.** Variation in chemical composition of hen's blood accompanying egg production, p. xxx

Humphrey, Gertrude J. See MEDES and HUMPHREY, 149

Hunscher, Helen. See MACY, OUTHOUSE, LONG, BROWN, HUNSCHER, and HOOBLER, p. xxxi

Hunter, Andrew, and **Morrell, Joseph A.** Some characteristics of the enzyme arginase, p. lx

Hurxthal, L. M. See DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK, 303

—. See DILL, LAWRENCE, HURXTHAL, and BOCK, 313

I

Ishikawa, Y. See SUPNIEWSKI, ISHIKAWA, and GEILING, 241

J

Jackson, Henry, Jr., Sherwood, David W., and **Moore, Olive J.** The blood peptide nitrogen in arterial hypertension, 231

Jacobs, Walter A., and **Gustus, Edwin L.** Strophanthin. XI. The hydroxyl groups of strophanthidin, 795
— and —. XII. The oxidation of trianhydrostrophanthidin, 805
— and —. XIII. Isostrophanthidin and its derivatives, 811
— and —. XIV. Isomerization in the isostrophanthidin series, 829
— and **Hoffmann, Alexander.** The relationship between the structure and the biological action of the cardiac glucosides, 787
Jones, D. Breese, and **Csonka, Frank A.** Studies on glutelins. II. The glutelin of rice (*Oryza sativa*), 427
— and **Gersdorff, Charles E. F.** The globulins of rice, *Oryza sativa*, 415
— and **Moeller, Otto.** Determination of aspartic and glutamic acids in proteins, p. liv
—. See Csonka and Jones, p. liv
Jordan, C. N. See Doisy, Jordan, and Thayer, p. lxxx

K

Keith, H. M. See McQuarrie and Keith, p. xvi
Keltch, Anna K. See Gaebler and Keltch, p. xx
Kendall, Edward C., and **Witzemann, Edgar J.** Potentiometric studies of the oxidation and reduction of epinephrine and related compounds, p. xlix
Kennedy, Cornelia. See Palmer and Kennedy, 591
Kennedy, R. P. The quantitative determination of iron in tissues, 385
Kiech, Veon C. See Bodansky, Morse, Kiech, and Bramkamp, 463
Koehler, Alfred E., and **Matthew, C. W.** The oxygen activity of the blood serum and its relation to the basal metabolic rate, p. lxxxi
Kramer, Benjamin. See Shear and Kramer, p. ix
Krogh, August. On the accuracy to be obtained by repetition of simple measurements, 393
Kruse, T. K. See Guthrie, McEllroy, and Kruse, p. lxxxi

L

Latshaw, W. L. See Hughes, Latshaw, and Smits, p. xxx
Lawrence, J. S. See Dill, Lawrence, Hurxthal, and Bock, 313
Levene, P. A., and **Bass, Lawrence W.** The effect of ionization upon optical rotation. III. Relations in the 2, 5-anhydro sugar acids, 727
— and —. Studies on racemization. V. The action of alkali on gelatin, 715
— and **Bencowitz, Isaac.** The rotatory dispersion of the pentacetates of α- and β-glucose and of α- and β-mannose, 153

Levene, P. A., and **Haller, H. L.** Configurational relationships of 2-hydroxybutyric and lactic acids, 343

— and **Meyer, G. M.** Diacetone glucose. IV. α- and β-isomers of 3,5,6-trimethylmethylglucoside and of 2,3,5,6-tetramethylmethylglucoside, 701

— and —. Pentamethyl *d*-mannose and pentamethyl *d*-galactose and their dimethyl acetals, 695

— and **Rolf, Ida P.** Note on the preparation of cephalin, 713

— and **Steiger, Robert E.** The action on tyrosine and on phenylaminoacetic acid of acetic anhydride and acetone in the presence of pyridine, 689

Lewis, George T., and **Lewis, Howard B.** The metabolism of sulfur. XIII. The effect of elementary sulfur on the growth of the young white rat, 515

— and —. The utilization of some peptides and a diketopiperazine containing cystine, for the nutritive requirements of the white rat, p. lxxx

Lewis, Howard B. See LEWIS and LEWIS, p. lxxx, 515

Loeb, Robert F., and **Nichols, Emily G.** Effects of dialysis and of ether extraction on the diffusibility of calcium in human blood serum, 645

Long, M. Louisa. See MACY, OUTHOUSE, LONG, BROWN, HUNSCHER, and HOOBLER, p. xxxi

Looney, Joseph M. The preparation and use of colloidal carbon solutions, p. lxiii

Lucas, G. H. W., Brown, W. Easson, and **Henderson, V. E.** Bromine excretion following bromoform anesthesia, p. lxxix

M

MacArthur, E. H. See SHERMAN and MACARTHUR, 107

MacLeod, Grace. The basal metabolism of overweight boys and girls eleven and twelve years of age, p. lxxxi

Macy, Icie G., Outhouse, Julia, Long, M. Louisa, Brown, Minerva, Hunscher, Helen, and **Hoobler, B. Raymond.** Observations upon the composition of blood and milk of women during the different stages of lactation, p. xxxi

Massengale, O. M. See RUSSELL and MASSENGALE, p. lxxvi

Matthew, C. W. The plasma proteins of normal dogs, 557

—. See KOEHLER and MATTHEW, p. lxxxi

Mattill, H. A. The biological value of the proteins of milk and of cereal breakfast foods, as determined on rats, p. lxxxi

—. Chemical analysis of the degenerated testes of rats on a diet deficient in vitamin E, p. lxxxi

McCollum, E. V. See SIMMONDS, BECKER, and MCCOLLUM, p. lxviii
McEllroy, W. S., and Guthrie, C. C. Studies on the rate of oxygen absorption by blood, p. xxxv
—. See GUTHRIE, MCELLROY, and KRUSE, p. lxxxi
McGee, Lemuel. Biochemical studies on extracts from testes, p. lxxxi
McLaughlin, Laura. Utilization of the calcium of spinach, 455
McMeekin, T. L. The action of neutral salts in the hydrolysis of proteins by pepsin, p. lxxxi
McNally, William D., Embree, H. C., and Rust, C. A. Alcoholic content of normal placental tissue, 219
McQuarrie, Irvine, and Keith, H. M. Variations in the urinary and blood acetone bodies during the day in children on ketogenic diets, p. xvi
Medes, Grace, and Humphrey, Gertrude J. Magnesium content of normal rats at different ages, 149
Medlock, Olin C. See DYE, MEDLOCK, and CRIST, 95
Meyer, G. M. See LEVENE and MEYER, 695, 701
Milhorat, Adolph T. See DEUEL, MILHORAT, and SWEET, p. xl
—. See DEUEL, WILSON, and MILHORAT, 265
Minot, George R. See COHN, MINOT, FULTON, ULRICHS, SARGENT, WEARE, and MURPHY, p. lxix
Mirsky, A. E. See ANSON and MIRSKY, p. lvii
Mitchell, Helen S., and Vaughn, Margery. The relation of inorganic iron to nutritional anemia, p. lxxviii
Moeller, Otto. See JONES and MOELLER, p. liv
Moore, Olive J. See JACKSON, SHERWOOD, and MOORE, 231
Morgulis, Sergius, and Hamsa, W. R. Studies on urinary acidity, and a method for electrometric titration of urine, 851
Morrell, Joseph A. See HUNTER and MORRELL, p. lx
Morse, Stanley W. See BODANSKY, MORSE, KIECH, and BRAMKAMP, 463
Muntwyler, Edward. See MYERS and MUNTWYLER, p. xxxiv
Murphy, William P. See COHN, MINOT, FULTON, ULRICHS, SARGENT, WEARE, and MURPHY, p. lxix
Myers, Victor C., and Muntwyler, Edward. A study of the acid-base equilibria of the blood in cases receiving alkali, p. xxxiv

N

Nichols, Emily G. See LOEB and NICHOLS, 645
Nord, F. F. On the mechanism of enzyme action, p. lviii
du Noüy, P. Lecomte. A densimeter for the rapid determination of the specific gravity of small quantities of liquids and solids, 443

Novello, N. Jean. The fate of certain heterocyclic ring compounds in the animal body, 33

O

Outhouse, Julia. See MACY, OUTHOUSE, LONG, BROWN, HUNSCHER, and HOOBLER, p. xxxi

P

Palmer, Leroy S., and **Kennedy, Cornelia.** The fundamental food requirements for the growth of the rat. I. Growth on a simple diet of purified nutrients, 591

Pemberton, Ralph. See CAJORI and PEMBERTON, p. xxii

Perkins, Marie E. See BUELL and PERKINS, p. lxxx

Peterson, Vernon L., and **West, Edward S.** The volumetric estimation of hydroxyl groups in sugars and other organic compounds, 379

Peterson, W. H. See ELVEHJEM and PETERSON, 433

—. See WILSON, PETERSON, and FRED, 495

Power, Marschelle H., and **Greene, Carl H.** Studies of the blood by vividialysis. I. The blood sugar, p. xix

Preisler, P. W. Electrometric reduction potentials of sugars, p. xlviii

Přibyl, Emil. On the nitrogen metabolism in experimental subacute arsenic and antimony poisoning, 775

Proctor, Bernard Emerson. See ROWE and PROCTOR, p. iii

Pucher, George W. Seasonal periodicity in man. I. A study of the blood chemistry of normal individuals over a period of two years, p. xviii

Q

Quick, Armand J. The preparation of borneol glycuronic acid and glycuronic acid, 331

R

Rabinowitch, J. See WHITE and RABINOWITCH, 449

Raffel, Daniel. A micro method for the quantitative determination of carbon dioxide in blood and other solutions, and some observations on the efficiency of paraffin oil as a means of keeping carbon dioxide in solution, 839

Raymond, Albert L., and **Winegarden, Howard M.** Cozymase. A study of purification methods, 175

— and —. The determination of carbon dioxide in fermenting mixtures, 189

Riegel, Cecilia. Formation of lactic acid in the body after severe hemorrhage, 123

—. The rate of disappearance of sodium lactate injected intravenously and its effect upon sugar and inorganic phosphate of the blood, 135

Riising, Blanche. See STEENBOCK, HART, RIISING, and HOPPERT, p. lxxiii

Rockwood, Elbert W., and **Turner, Robert G.** A previously undetected component of blood, p. xvii

Rolf, Ida P. See LEVENE and ROLF, 713

Ronzoni, Ethel. A comparison of glycolysis in muscle and blood *in vitro*, p. xliii

— and **Wallen-Lawrence, Zonja.** Determination of lactic acid in blood, 363

Rose, William C. See WESTERMAN and ROSE, p. lxvii

Rothwell, Carmen S. The determination of calcium in whole oxalated blood, 257

Rowe, Allan Winter, and **Proctor, Bernard Emerson.** The composition of the residual nitrogen fraction in the urine, p. iii

Russell, Walter C., and **Massengale, O. M.** The transmission of ultra-violet light by a glass substitute, p. lxxvi

Rust, C. A. See MCNALLY, EMBREE, and RUST, 219

S

Sandiford, Irene, and **Sandiford, Kathleen.** The effect of thyroxin on a subject on high carbohydrate diet, p. li

Sandiford, Kathleen. See SANDIFORD and SANDIFORD, p. li

Sargent, Florence C. See COHN, MINOT, FULTON, ULRICHS, SARGENT, WEARE, and MURPHY, p. lxix

Saunders, Felix. Studies on optically active dyes, p. lxxxi

Schilling, S. J. See SURE and SCHILLING, p. lxxiv

Schmitz, Henry Lenzen, and **Glover, Eugene Chellis.** Glycolysis in leucemic blood, 761

Shaffer, Philip A. On coupled reactions: The intermediate peroxides in the oxidation of ferrous salts, p. xlvi

Shear, M. J., and **Kramer, Benjamin.** The inorganic composition of bone. I. Methods, p. ix

Sheppard, Fay. See EVERETT, SHOEMAKER, and SHEPPARD, 739

Sherman, Elizabeth. See HESS, BERG, and SHERMAN, p. xxvii

Sherman, H. C., and **Gloy, O. H. M.** Vitamin B determination and requirement with special reference to protein intake, 117

— and **MacArthur, E. H.** A quantitative study of the determination of vitamin B, 107

Sherwood, David W. See JACKSON, SHERWOOD, and MOORE, 231

Shoemaker, Harold A. See EVERETT and SHOEMAKER, p. vi

—. See EVERETT, SHOEMAKER, and SHEPPARD, 739

XUM

Shohl, Alfred T., and **Bennett, Helen B.** A new micro method for the determination of potassium in physiological material, p. iv

— and —. Rickets in rats. III. Metabolism of calcium and phosphorus of rats on restricted food intakes, 247

Simmonds, Nina, Becker, J. Ernestine, and **McCollum, E. V.** The relation of vitamin E to iron assimilation, p. lxviii

Sinclair, R. G. See BLOOR and SINCLAIR, p. iv

Smith, Edith A. See WANG, STROUSE, and SMITH, p. xxxvii

Smith, J. B. See GILBERT and SMITH, 223

Smits, B. L. See HUGHES, LATSHAW, and SMITS, p. xxx

Stadie, William C., and **Hawes, Effie Ross.** The apparent first dissociation constant, pK_1', of carbonic acid, the activity coefficient of the bicarbonate ion in solutions of hemoglobin, methemoglobin, cyanhemoglobin, and nitric oxide hemoglobin at varying ionic strengths and the extension of the Debye-Hückel theory of ionic interaction to hemoglobin, bicarbonate-sodium chloride systems, p. xxxi

Steenbock, H., Hart, E. B., Riising, Blanche, and **Hoppert, C. A.** Variations in the antirachitic effect of ultraviolet irradiation, p. lxxiii

Steiger, Robert E. See LEVENE and STEIGER, 689

Stoddard, James L. An electrolytic method for the determination of sodium plus potassium, 677

Strouse, Solomon. See WANG, STROUSE, and SMITH, p. xxxvii

Subbarow, Yellapragada. See FISKE and SUBBAROW, p. xxii

Sullivan, M. X. The colorimetric estimation of cystine in casein by means of the naphthoquinone cysteine reaction, p. xiv

Sumner, James B. Some properties of crystallized urease, p. lxi

Supniewski, J. V., Ishikawa, Y., and **Geiling, E. M. K.** The effect of insulin injected into the cerebrospinal fluid, 241

Sure, Barnett. II. A biological method for the study of the rôle of vitamin B in lactation, p. lxxx

—. Dietary requirements for reproduction. VIII. Further studies of a skimmed milk powder reproduction-deficient diet, 37

—. IX. Cod liver oil *versus* wheat oil as sources of vitamin E, 45

—. X. Vitamin B requirements for normal lactation, 55

—. XI. The potency of butter fat in vitamin E, 71

—. IX. Cod liver oil *versus* wheat oil as sources of vitamin E, p. lxxx

Sure, Barnett. X. Lactation studies on synthetic diets containing alcoholic extracts of wheat embryo as the only source of vitamin B, p. lxxx
—. XI. Vitamin E potency of butter fat, p. lxxx
—. VIII. Vitamin E potency of unsaponifiable matter from crude cottonseed and crude corn oils, p. lxxx
— and **Schilling, S. J.** Vitamin requirements of the nursing mother. I. The production of beriberi in the nursing young of the albino rat on diets entirely satisfactory for growth, p. lxxiv
Sweet, J. E. See DEUEL, MILHORAT, and SWEET, p. xl

T

Thayer, S. See DOISY, JORDAN, and THAYER, p. lxxx
Turner, Robert G. See ROCKWOOD and TURNER, p. xvii
Turner, William A., Harding, T. Swann, and **Hartman, Arthur M.** Calcium and phosphorus metabolism in dairy cows. II. The relative assimilation of clover and alfalfa hays and of rations of varying calcium and phosphorus content, p. xxvii

U

Ulrichs, Hermann F. See COHN, MINOT, FULTON, ULRICHS, SARGENT, WEARE, and MURPHY, p. lxix

V

Van Slyke, Donald D., and **Hawkins, James A.** Gasometric determination of blood sugar, p. viii
—, **Hiller, Alma,** and **Berthelsen, Knud C.** A gasometric micro method for determination of iodates and sulfates, and its application to the estimation of total base in blood serum, 659
Vaughn, Margery. See MITCHELL and VAUGHN, p. lxxviii
du Vigneaud, Vincent. The behavior of insulin preparations towards the uric acid reagent of Folin and Denis, p. xvii

W

Wallen-Lawrence, Zonja. See RONZONI and WALLEN-LAWRENCE, 363
Wang, Chi Che, Strouse, Solomon, and **Smith, Edith A.** Influence of fatigue on the heat production during muscular work in obese, normal, and thin subjects, p. xxxvii
Weare, John H. See COHN, MINOT, FULTON, ULRICHS, SARGENT, WEARE, and MURPHY, p. lxix
West, Edward S. Condensation products of acetoacetic ester. III. A series of new compounds of glucose. Further studies in antiketogenesis, 561
—. Further studies in antiketogenesis. A new reaction of glucose. Condensation with acetoacetic ester, p. xlii

XUM

West, Edward S. See PETERSON and WEST, 379

Westerman, Beulah D., and **Rose, William C.** The availability of disulfide acids as supplementing agents in diets deficient in cystine, p. lxvii

White, H. L., and **Rabinowitch, J.** Chemical and polarimetric observations on glucose and salt solutions recovered from Thiry-Vella loops, 449

Whitehorn, John C. Concerning chloride determinations by the modified Volhard titration, 299

Wickwire, George C. See BURGE, WICKWIRE, ESTES, and WILLIAMS, 235

Williams, George Albert. The utilization of wheat bran by the dog, p. lxxxi

Williams, Maude. See BURGE, WICKWIRE, ESTES, and WILLIAMS, 235

Wilson, H. Ellis C. The conditions under which carbohydrate is oxidized in phlorhizinized dogs, p. xxxix

—. See DEUEL, WILSON, and MILHORAT, 265

Wilson, P. W., Peterson, W. H., and **Fred, E. B.** The production of acetylmethyl carbinol by *Clostridium acetobutylicum*, 495

Winegarden, Howard M. See RAYMOND and WINEGARDEN, 175, 189

Witzemann, Edgar J. See KENDALL and WITZEMANN, p. xlix

Y

Yoder, Lester. Effect of antirachitic vitamin on the phosphorus, calcium, and pH in the intestinal tract, 321

Young, E. Gordon. The autolytic powers of *Bacillus coli communis*, p. lxii

INDEX TO SUBJECTS.

A

Acetic anhydride:
Phenylaminoacetic acid acted upon by acetone and, in presence of pyridine (LEVENE and STEIGER) 689
Tyrosine acted upon by acetone and, in presence of pyridine (LEVENE and STEIGER) 689

Acetoacetic ester:
Condensation products. III (WEST) 561

Acetone:
Phenylaminoacetic acid acted upon by acetic anhydride and, in presence of pyridine (LEVENE and STEIGER) 689
Tyrosine acted upon by acetic anhydride and, in presence of pyridine (LEVENE and STEIGER) 689

Acetylmethyl carbinol:
Clostridium acetobutylicum, production (WILSON, PETERSON, and FRED) 495

Acid(s):
Dyes and proteins, nature of combination between (GORTNER) 409

Acidity:
Urine (MORGULIS and HAMSA) 851

Adrenalectomy:
Carbohydrate metabolism (CORI and CORI) 473

Alcohol:
Normal placental tissue, content (MCNALLY, EMBREE, and RUST) 219

Aldobionic acid:
Specific polysaccharide, pneumococcus, Type III (HEIDELBERGER and GOEBEL) 613

Alkali:
Gelatin, action on (LEVENE and BASS) 715

Alveolar air:
Carbon dioxide equilibrium in, and arterial blood, in exercising subjects (DILL, LAWRENCE, HURXTHAL, and BOCK) 313
— — — —, and arterial blood, in resting subjects (DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK) 303

Amino acid(s):
Stimulating effect on sugar metabolism with respect to optical activity (BURGE, WICKWIRE, ESTES, and WILLIAMS) 235

XUM

Anemia:
Blood protein distribution in (BODANSKY, MORSE, KIECH, and BRAMKAMP) 463
2,5-Anhydro sugar acid:
Ionization effect upon optical rotation (LEVENE and BASS) 727
Antiketogenesis:
(WEST) 561
Antimony:
Poisoning, nitrogen metabolism (PŘIBYL) 775
Arsenic:
Poisoning, nitrogen metabolism (PŘIBYL) 775
Artery:
Blood, carbon dioxide equilibrium in alveolar air and, in exercising subjects (DILL, LAWRENCE, HURXTHAL, and BOCK) 313
—, — — — in alveolar air and, in resting subjects (DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK) 303
— peptide nitrogen in arterial hypertension (JACKSON, SHERWOOD, and MOORE) 231

B

Bacillus:
Friedländer, soluble specific substance. IV (GOEBEL) 619
—, Type A, specific carbohydrate, hydrolytic products (GOEBEL) 619
Tubercle, lipoid fractions (ANDERSON) 525
—, phosphatide fraction (ANDERSON) 537
Base:
Total, blood serum, estimation by gasometric determination of iodates and sulfates (VAN SLYKE, HILLER, and BERTHELSEN) 659
Benzoic acid:
Detoxication in man (BRAKEFIELD) 783
Biology:
Cardiac glucosides, structure and biological action, relationship (JACOBS and HOFFMANN) 787
Blood:
Arterial, carbon dioxide equilibrium in alveolar air and, in exercising subjects (DILL, LAWRENCE, HURXTHAL, and BOCK) 313
—, — — — in alveolar air and, in resting subjects (DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK) 303
Calcium determination of whole oxalated (ROTHWELL) 257
Carbon dioxide, micro method for quantitative determination (RAFFEL) 839
Density, effect of respiratory gases upon (HAMILTON and BARBOUR) 553
Lactic acid, determination (RONZONI and WALLEN-LAWRENCE) 363
Leucemic, glycolysis (SCHMITZ and GLOVER) 761

Blood—*continued:*
Peptide nitrogen in arterial hypertension (JACKSON, SHERWOOD, and MOORE) 231
Phosphate, inorganic, sodium lactate intravenously injected, effect (RIEGEL) 135
Protein distribution in experimental anemia (BODANSKY, MORSE, KIECH, and BRAMKAMP) 463
Serum, calcium diffusibility, dialysis and ether extraction effects (LOEB and NICHOLS) 645
—, total base, estimation by gasometric determination of iodates and sulfates (VAN SLYKE, HILLER, and BERTHELSEN) 659
Sugar (EVERETT, SHOEMAKER, and SHEPPARD) 739
—, sodium lactate intravenously injected, effect (RIEGEL) 135
Uric acid level, carbohydrate diet, influence (HARDING, ALLIN, and EAGLES) 631
— — —, fat diet, influence (HARDING, ALLIN, and EAGLES) 631

Borneol glycuronic acid:
Preparation (QUICK) 331

Butter fat:
Vitamin E (SURE) 71

C

Calcium:
Blood, whole, oxalated, determination (ROTHWELL) 257
Diffusibility in blood serum, dialysis and ether extraction effects (LOEB and NICHOLS) 645
Intestinal tract, antirachitic vitamin effect (YODER) 321
Metabolism on restricted food intakes (SHOHL and BENNETT) 247
Spinach, utilization (MCLAUGHLIN) 455

Calorimetry:
Animal. XXXV (DEUEL, WILSON, and MILHORAT) 265

Carbohydrate:
Diet, blood uric acid level, influence (HARDING, ALLIN, and EAGLES) 631
Metabolism, adrenalectomized rats and mice (CORI and CORI) 473
Specific, Friedländer bacillus, Type A, hydrolytic products (GOEBEL) 619

Carbon dioxide:
Blood and other solutions, micro method for quantitative determination (RAFFEL) 839
Equilibrium in alveolar air and arterial blood in exercising subjects (DILL, LAWRENCE, HURXTHAL, and BOCK) 313

XUM

Carbon dioxide—*continued:*
Equilibrium in alveolar air and arterial blood in resting subjects (DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK) 303
Fermenting mixtures, determination (RAYMOND and WINEGARDEN) 189
Solution kept by paraffin oil (RAFFEL) 839
Cardiac:
See Heart.
Cephalin:
Preparation (LEVENE and ROLF) 713
Cerebrospinal fluid:
Insulin injected into, effect (SUPNIEWSKI, ISHIKAWA, and GEILING) 241
Ceruleomolybdate:
Phosphate-phosphorus, estimation (GILBERT and SMITH) 223
Chloride:
Volhard titration, modified, determinations (WHITEHORN) 299
Cholesterol:
Irradiated, antirachitic value. VIII (HESS and ANDERSON) 651
Clostridium acetobutylicum:
Acetylmethyl carbinol production by (WILSON, PETERSON, and FRED) 495
Cod liver oil:
Vitamin E (SURE) 45
Conductivity:
Proteolysis and. I (BAERNSTEIN) 351
Cozymase:
Purification methods (RAYMOND and WINEGARDEN) 175

D

Densimeter:
Liquids and solids, small quantities, rapid determination of specific gravity (DU NOÜY) 443
Density:
Blood and other fluids, effect of respiratory gases (HAMILTON and BARBOUR) 553
Detoxication:
Benzoic acid in man (BRAKEFIELD) 783
Dextrose:
Nitrogen ratio in fasted, depancreatized dogs (CHAIKOFF) 203
Diabetes:
Phlorhizin, mechanism (DEUEL, WILSON, and MILHORAT) 265
Diacetone glucose:
IV (LEVENE and MEYER) 701
Dialysis:
Calcium diffusibility in blood serum, effect (LOEB and NICHOLS) 645
Diet:
Carbohydrate, blood uric acid level, influence (HARDING, ALLIN, and EAGLES) 631
Fat, blood uric acid level, influence (HARDING, ALLIN, and EAGLES) 631
Purified nutrients, growth on (PALMER and KENNEDY) 591
Reproduction. VIII (SURE) 37
—. IX (SURE) 45
—. X (SURE) 55

Diet—*continued:*
Reproduction. XI (SURE) 71
Reproduction-deficient, skimmed milk powder (SURE) 37
Diffusion:
Calcium diffusibility in blood serum, dialysis and ether extraction effects (LOEB and NICHOLS) 645
Dimethyl acetal:
Pentamethyl *d*-galactose (LEVENE and MEYER) 695
— *d*-mannose (LEVENE and MEYER) 695
Dispersion:
Rotatory, pentacetates of α- and β-glucose (LEVENE and BENCOWITZ) 153
—, — — — and β-mannose (LEVENE and BENCOWITZ) 153
Dye:
Acid, and proteins, nature of combination between (GORTNER) 409

E

Electrolysis:
Sodium plus potassium, electrolytic determination (STODDARD) 677
Electrometric:
Titration, urine, method (MORGULIS and HAMSA) 851
Equilibrium:
Carbon dioxide, in alveolar air and arterial blood in exercising subjects (DILL, LAWRENCE, HURXTHAL, and BOCK) 313
Equilibrium—*continued:*
Carbon dioxide, in alveolar air and arterial blood in resting subjects (DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK) 303
Ether:
Extraction, calcium diffusibility in blood serum, effect (LOEB and NICHOLS) 645
Excretion:
Ketone body, in fasted, depancreatized dogs (CHAIKOFF) 203
Exercise:
Carbon dioxide equilibrium in alveolar air and arterial blood during (DILL, LAWRENCE, HURXTHAL, and BOCK) 313

F

Fasting:
Dextrose to nitrogen ratios in fasted, depancreatized dogs (CHAIKOFF) 203
Glycogen content of liver and muscle in fasted, depancreatized dogs (CHAIKOFF) 203
Ketone body excretion in fasted, depancreatized dogs (CHAIKOFF) 203
Fat:
Diet, blood uric acid level, influence (HARDING, ALLIN, and EAGLES) 631
Fermentation:
Carbon dioxide determination in fermenting mixtures (RAYMOND and WINEGARDEN) 189

XUM

Food:
Growth requirements. I (PALMER and KENNEDY) 591
Restricted intake, metabolism of calcium and phosphorus (SHOHL and BENNETT) 247
Friedländer:
Bacillus, soluble specific substance. IV (GOEBEL) 619
—, Type A, specific carbohydrate, hydrolytic products (GOEBEL) 619

G

Galactose:
Intravenously administered, disposal (CORLEY) 1
— —, galactose effect on disposal (CORLEY) 19
— —, glucose effect on disposal (CORLEY) 19
Gas:
Iodates, gasometric micro method (VAN SLYKE, HILLER, and BERTHELSEN) 659
Respiratory, density of blood and other fluids, effect (HAMILTON and BARBOUR) 553
Sulfates, gasometric micro method (VAN SLYKE, HILLER, and BERTHELSEN) 659
Gelatin:
Alkali action on (LEVENE and BASS) 715
Globulin:
Rice (*Oryza sativa*) (JONES and GERSDORFF) 415
Glucose:
Galactose intravenously administered, disposal affected by (CORLEY) 19
New compounds (WEST) 561
Solution recovered from Thiry-Vella loops, chemical and polarimetric observations (WHITE and RABINOWITCH) 449
α-Glucose pentacetate:
Rotatory dispersion (LEVENE and BENCOWITZ) 153
β-Glucose pentacetate:
Rotatory dispersion (LEVENE and BENCOWITZ) 153
Glucoside:
Cardiac, structure and biological action, relationship (JACOBS and HOFFMANN) 787
Glutelin:
II (JONES and CSONKA) 427
Rice (*Oryza sativa*) (JONES and CSONKA) 427
Glycogen:
Liver and muscles in fasted, depancreatized dogs (CHAIKOFF) 203
Glycolysis:
Leucemic blood (SCHMITZ and GLOVER) 761
Glycuronic acid:
Preparation (QUICK) 331
Greenness:
Plant tissue, vitamin A. I (DYE, MEDLOCK, and CRIST) 95

XUM

Growth:
Diet of purified nutrients (PALMER and KENNEDY) 591
Food requirements. I (PALMER and KENNEDY) 591
Sulfur, elementary, effect (LEWIS and LEWIS) 515

H

Heart:
Cardiac glucosides, structure and biological action, relationship (JACOBS and HOFFMANN) 787

Hemorrhage:
Lactic acid formation following (RIEGEL) 123

Heterocyclic compounds:
Animal body (NOVELLO) 33

Hydrogen:
Ion concentration in intestinal tract, antirachitic vitamin effect (YODER) 321

Hydrolysis:
Specific carbohydrate, Friedländer bacillus, Type A, hydrolytic products (GOEBEL) 619

2-Hydroxybutyric acid:
Lactic acid, configurational relationships (LEVENE and HALLER) 343

Hydroxyl:
Groups in sugars and organic compounds, volumetric estimation (PETERSON and WEST) 379

Hydroxyl—*continued:*
Groups, strophanthidin (JACOBS and GUSTUS) 795

Hypertension:
Arterial, blood peptide nitrogen (JACKSON, SHERWOOD, and MOORE) 231

I

Iodates:
Gasometric micro method (VAN SLYKE, HILLER, and BERTHELSEN) 659

Ion:
Hydrogen, concentration, in intestinal tract, antirachitic vitamin effect (YODER) 321
Optical rotation affected by ionization. III (LEVENE and BASS) 727

Insulin:
Cerebrospinal fluid, injected, effect (SUPNIEWSKI, ISHIKAWA, and GEILING) 241

Intestine:
Calcium, antirachitic vitamin effect (YODER) 321
Hydrogen ion concentration, antirachitic vitamin effect (YODER) 321
Phosphorus, antirachitic vitamin effect (YODER) 321

Intoxication:
Antimony, nitrogen metabolism (PŘIBYL) 775
Arsenic, nitrogen metabbolism (PŘIBYL) 775

XUM

Intravenous:
Galactose, intravenously administered, disposal (CORLEY) 1
—, — —, galactose effect on disposal (CORLEY) 19
—, — —, glucose effect on disposal (CORLEY) 19
Sodium lactate, blood sugar, effect (RIEGEL) 135
— —, inorganic phosphate of blood, effect (RIEGEL) 135
— —, rate of disappearance (RIEGEL) 135
Iron:
Quantitative determination in tissues (KENNEDY) 385
Tissues, animal (ELVEHJEM and PETERSON) 433
Irradiation:
Cholesterol, antirachitic value. VIII (HESS and ANDERSON) 651
Phytosterol, antirachitic value. VIII (HESS and ANDERSON) 651
Ultra-violet, sterol fractions activated by (HESS and ANDERSON) 651
Isomer:
α- and β- of 2,3,5,6-tetramethylmethylglucoside (LEVENE and MEYER) 701
— — — — 3,5,6-trimethylmethylglucoside (LEVENE and MEYER) 701
Isomerization:
Isostrophanthidin (JACOBS and GUSTUS) 829
Isostrophanthidin:
(JACOBS and GUSTUS) 811
Isomerization (JACOBS and GUSTUS) 829

K

Ketone:
Excretion in fasted, depancreatized dogs (CHAIKOFF) 203

L

Lactation:
Vitamin B requirement (SURE) 55
Lactic acid:
Blood, determination (RONZONI and WALLEN-LAWRENCE) 363
Formation after hemorrhage (RIEGEL) 123
2-Hydroxybutyric acid, configurational relationships (LEVENE and HALLER) 343
Lactose:
Metabolism. I (CORLEY) 1
—. II (CORLEY) 19
Lettuce:
Vitamin A (DYE, MEDLOCK, and CRIST) 95
Leucemia:
Glycolysis in blood (SCHMITZ and GLOVER) 761
Lipoid:
Fractions, tubercle bacilli (ANDERSON) 525
Liver:
Glycogen content in fasted, depancreatized dogs (CHAIKOFF) 203

XUM

M

Magnesium:
Content, rats of different ages (MEDES and HUMPHREY) 149
α-Mannose pentacetate:
Rotatory dispersion (LEVENE and BENCOWITZ) 153
β-Mannose pentacetate:
Rotatory dispersion (LEVENE and BENCOWITZ) 153
Measurements:
Accuracy obtained by repetition (KROGH) 393
Metabolism:
Calcium, on restricted food intakes (SHOHL and BENNETT) 247
Carbohydrate, adrenalectomized rats and mice (CORI and CORI) 473
Lactose. I (CORLEY) 1
—. II (CORLEY) 19
Nitrogen, arsenic and antimony poisoning (PŘIBYL) 775
Phosphorus, on restricted food intakes (SHOHL and BENNETT) 247
Sugar, stimulating effect of amino acids, with respect to optical activity (BURGE, WICKWIRE, ESTES, and WILLIAMS) 235
Sulfur. XIII (LEWIS and LEWIS) 515
Milk:
Reproduction-deficient diet, skimmed milk powder (SURE) 37
Muscle:
Glycogen content in fasted, depancreatized dogs (CHAIKOFF) 203

N

Nitrogen:
Dextrose ratio in fasted, depancreatized dogs (CHAIKOFF) 203
Metabolism, arsenic and antimony poisoning (PŘIBYL) 775
Peptide, blood, in arterial hypertension (JACKSON, SHERWOOD, and MOORE) 231
Urine, hen, constituents (DAVIS) 509
Nutrient:
Purified, growth on diet (PALMER and KENNEDY) 591

O

Oil:
Cod liver. *See* Cod liver oil.
Wheat. *See* Wheat oil.
Optical activity:
Amino acids, stimulating effect on sugar metabolism with respect to (BURGE, WICKWIRE, ESTES, and WILLIAMS) 235
Ionization, effect upon. III (LEVENE and BASS) 727
Oryza sativa:
Globulins (JONES and GERSDORFF) 415
Glutelin (JONES and CSONKA) 427

XUM

Oxidation:
Trianhydrostrophanthidin (JACOBS and GUSTUS) 805

P

Pancreatectomy:
Dextrose to nitrogen ratios in fasted, depancreatized dogs (CHAIKOFF) 203
Glycogen content of liver and muscles in fasted, depancreatized dogs (CHAIKOFF) 203
Ketone body excretion in fasted, depancreatized dogs (CHAIKOFF) 203

Paraffin oil:
Carbon dioxide kept in solution by (RAFFEL) 839

Pentamethyl *d*-galactose:
Dimethyl acetals (LEVENE and MEYER) 695

Pentamethyl *d*-mannose:
Dimethyl acetals (LEVENE and MEYER) 695

Peptide:
Nitrogen, blood, in arterial hypertension (JACKSON, SHERWOOD, and MOORE) 231

Peptone:
Conductivity method and proteolysis (BAERNSTEIN) 351

Phenylaminoacetic acid:
Acetic anhydride and acetone in presence of pyridine, action (LEVENE and STEIGER) 689

Phlorhizin:
Diabetes, mechanism (DEUEL, WILSON, and MILHORAT) 265

Phosphate:
Inorganic, blood, sodium lactate intravenously injected, effect (RIEGEL) 135
-phosphorus, ceruleomolybdate estimation (GILBERT and SMITH) 223

Phosphatide:
Fraction, tubercle bacilli (ANDERSON) 537

Phosphorus:
Intestinal tract, antirachitic vitamin effect (YODER) 321
Metabolism on restricted food intakes (SHOHL and BENNETT) 247
Phosphate-, ceruleomolybdate estimation (GILBERT and SMITH) 223

Phytosterol:
Irradiated, antirachitic value. VIII (HESS and ANDERSON) 651

Placenta:
Alcoholic content of normal tissue (MCNALLY, EMBREE, and RUST) 219

Plant:
Tissue, greenness, association with vitamin A. I (DYE, MEDLOCK, and CRIST) 95

Plasma:
Proteins (MATTHEW) 557

Pneumococcus:
Soluble specific substance. V (HEIDELBERGER and GOEBEL) 613
Specific polysaccharide, Type III, aldobionic acid from (HEIDELBERGER and GOEBEL) 613

Poisoning:
See Intoxication.
Polarimetry:
Glucose and salt solutions from Thiry-Vella loops (WHITE and RABINOWITCH) 449
Polysaccharide:
Specific, pneumococcus, Type III, aldobionic acid from (HEIDELBERGER and GOEBEL) 613
Potassium:
Sodium plus, electrolytic determination (STODDARD) 677
Protein(s):
Acid dyes and, nature of combination between (GORTNER) 409
Blood, distribution in experimental anemia (BODANSKY, MORSE, KIECH, and BRAMKAMP) 463
Intake, vitamin B requirement with reference to (SHERMAN and GLOY) 117
Plasma (MATTHEW) 557
Proteolysis:
Conductivity and. I (BAERNSTEIN) 351
Pyridine:
Phenylaminoacetic acid acted upon by acetic anhydride and acetone in presence of (LEVENE and STEIGER) 689
Tyrosine acted upon by acetic anhydride and acetone in presence of (LEVENE and STEIGER) 689

R

Racemization:
V (LEVENE and BASS) 715
Reproduction:
Diet, deficient, skimmed milk powder (SURE) 37
Dietary requirements. VIII (SURE) 37
— —. IX (SURE) 45
— —. X (SURE) 55
— —. XI (SURE) 71
Respiratory gases:
Density of blood and other fluids, effect (HAMILTON and BARBOUR) 553
Rest:
Carbon dioxide equilibrium in alveolar air and arterial blood in resting subjects (DILL, HURXTHAL, VAN CAULAERT, FÖLLING, and BOCK) 303
Rice:
Globulins (JONES and GERSDORFF) 415
Glutelin (JONES and CSONKA) 427
Rickets:
III (SHOHL and BENNETT) 247
Calcium in intestinal tract, antirachitic vitamin effect (YODER) 321
Cholesterol, irradiated, antirachitic value. VIII (HESS and ANDERSON) 651
Hydrogen ion concentration in intestinal tract, antirachitic vitamin effect (YODER) 321

XUM

Rickets—*continued:*
Phosphorus in intestinal tract, antirachitic vitamin effect (YODER) 321
Phytosterol, irradiated, antirachitic value. VIII (HESS and ANDERSON) 651

S

Salt(s):
Solution recovered from Thiry-Vella loops, chemical and polarimetric observations (WHITE and RABINOWITCH) 449
Serum:
Blood, calcium diffusibility, dialysis and ether extraction effects (LOEB and NICHOLS) 645
—, total base, estimation by gasometric determination of iodates and sulfates (VAN SLYKE, HILLER, and BERTHELSEN) 659
Sodium:
Potassium, plus, electrolytic determination (STODDARD) 677
Sodium lactate:
Intravenously administered, rate of disappearance (RIEGEL) 135
— injected, blood sugar, effect upon (RIEGEL) 135
— —, inorganic phosphate of blood, effect upon (RIEGEL) 135
Specific gravity:
Liquids and solids, small quantities, densimeter for rapid determination (DU NOÜY) 443
Specificity:
Carbohydrate, specific, Friedländer bacillus, Type A, hydrolytic products (GOEBEL) 619
Friedländer's bacillus, soluble specific substance. IV (GOEBEL) 619
Pneumococcus, soluble specific substance. V (HEIDELBERGER and GOEBEL) 613
Polysaccharide, specific, pneumococcus, Type III, aldobionic acid from (HEIDELBERGER and GOEBEL) 613
Spinach:
Calcium, utilization (MCLAUGHLIN) 455
Sterol:
Fractions, activation by ultra-violet irradiation (HESS and ANDERSON) 651
Strophanthin:
XI. (JACOBS and GUSTUS) 795
XII. (JACOBS and GUSTUS) 805
XIII. (JACOBS and GUSTUS) 811
XIV. (JACOBS and GUSTUS) 829
Strophanthidin:
Hydroxyl groups (JACOBS and GUSTUS) 795
Sugar:
Animal body, fate. VII (CORI and CORI) 473
Blood (EVERETT, SHOEMAKER, and SHEPPARD) 739

Sugar—*continued:*
Blood, sodium lactate intravenously injected, effect (RIEGEL) 135
Hydroxyl groups, volumetric estimation (PETERSON and WEST) 379
Metabolism, stimulating effect of amino acids, with respect to optical activity (BURGE, WICKWIRE, ESTES, and WILLIAMS) 235
Urine (EVERETT, SHOEMAKER, and SHEPPARD) 739
Sulfates:
Gasometric micro method (VAN SLYKE, HILLER, and BERTHELSEN) 659
Sulfur:
Elementary, growth, effect (LEWIS and LEWIS) 515
Metabolism. XIII (LEWIS and LEWIS) 515

T

2,3,5,6-Tetramethylmethylglucoside:
α- and β-isomers (LEVENE and MEYER) 701
Thiry-Vella loop:
Glucose and salt solutions recovered from, chemical and polarimetric observations (WHITE and RABINOWITCH) 449
Tissue:
Animal, iron content (ELVEHJEM and PETERSON) 433
Tissue—*continued:*
Iron, quantitative determination in (KENNEDY) 385
Placental, normal, alcoholic content (MCNALLY, EMBREE, and RUST) 219
Plant, vitamin A association with greenness. I (DYE, MEDLOCK, and CRIST) 95
Titration:
Electrometric, urine, method (MORGULIS and HAMSA) 851
Volhard, modified, chloride determinations (WHITEHORN) 299
Toxicity:
Zinc (HELLER and BURKE) 85
Trianhydrostrophanthidin:
Oxidation (JACOBS and GUSTUS) 805
3,5,6-Trimethylmethylglucoside:
α- and β-isomers (LEVENE and MEYER) 701
Tubercle:
Bacilli, lipoid fractions (ANDERSON) 525
—, phosphatide fraction (ANDERSON) 537
Tyrosine:
Acetic anhydride and acetone in presence of pyridine, action (LEVENE and STEIGER) 689

U

Ultra-violet:
Irradiation, sterol fractions activated by (HESS and ANDERSON) 651

XUM

Uric acid:
Blood, carbohydrate diet influence on level (HARDING, ALLIN, and EAGLES) 631
—, fat diet influence on level (HARDING, ALLIN, and EAGLES) 631
Urine:
Acidity (MORGULIS and HAMSA) 851
Electrometric titration, method (MORGULIS and HAMSA) 851
Hen, nitrogenous constituents (DAVIS) 509
Sugar (EVERETT, SHOEMAKER, and SHEPPARD) 739

V

Vitamin(s):
A, lettuce (DYE, MEDLOCK, and CRIST) 95
—, plant tissue, association with greenness. I (DYE, MEDLOCK, and CRIST) 95
B, determination (SHERMAN and GLOY) 117
Vitamin(s)—*continued:*
B, lactation, requirement (SURE) 55
—, quantitative determination (SHERMAN and (MACARTHUR) 107
—, requirement with reference to protein intake (SHERMAN and GLOY) 117
E, butter fat (SURE) 71
—, cod liver oil (SURE) 45
—, wheat oil (SURE) 45

Volhard:
Titration, modified, chloride determinations (WHITEHORN) 299

W

Wheat Oil:
Vitamin E (SURE) 45

Z

Zinc:
Toxicity (HELLER and BURKE) 85